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ABSTRACT

This booklet describes the efforts and successes of the National Center for Postsecondary Improvement (NCPI), a collaborative research venture of Stanford University, the University of Michigan, and the University of Pennsylvania that conducts research describing and analyzing the challenges of postsecondary education. Its goal is to provide institutions, policy makers, employers, students, parents, faculty, and administrators with the information and tools necessary to help them improve the U.S. postsecondary educational system. The booklet's first section briefly summarizes areas in which NCPI has effected improvement and its dissemination and outreach activities. The next section details research findings and their impact in seven areas: the marketplace, student outcomes, environmental demands, student transitions, access and financial aid, organizational change, and teaching, learning and assessment. The final section describes NCPI's planned activities in agenda-setting, extension of research analyses, and translation, dissemination, and outreach. (Contains 40 references.) (EV)

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About NCPI

The National Center for Postsecondary Improvement conducts research that describes and analyzes the challenges facing postsecondary education, with the ultimate goal of providing institutions, policymakers, employers, students, parents, faculty, and administrators with the information and tools necessary to help them improve the U.S. postsecondary educational system.

NCPI is a collaborative research venture of Stanford University, the University of Michigan, and the University of Pennsylvania. Its work is funded by the U.S. Department of Education's Office of Educational Research and Improvement, under the leadership of the National Institute for Postsecondary Education, Libraries, and Lifelong Learning (OERI/PLLI). The findings and opinions expressed by NCPI do not necessarily reflect the position or policies of OERI/PLLI or the U.S. Department of Education.

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Toward Postsecondary Improvement

In the past few years, postsecondary education has been challenged by a turbulent environment, prompting a rethinking of its financing, delivery, accountability, and management. NCPI has examined this shifting terrain in an attempt to define common ground between the often-opposing forces of the market and the preservation of postsecondary education's social charter. Through research and outreach, NCPI has helped institutions reexamine their goals and practices, helped students and parents to make more informed educational choices, assisted employers in working with educational institutions to develop a more prepared workforce, and provided policymakers with information to facilitate access and equity. More specifically, NCPI has affected improvement by:

- **Helping students, parents, and policymakers to understand the shape and impact of the market within postsecondary education.** NCPI developed a groundbreaking Market Taxonomy that altered the way that many stakeholders conceptualize the competitive dynamics of the postsecondary system. This taxonomy provides a simple but powerful tool for institutions and state-level agencies to use for planning and evaluation purposes.

- **Assisting consumers in making informed decisions when selecting among institutions.** NCPI researchers have devised a way to measure an institution's impact on their graduate's outcomes and abilities six years after graduation. The Collegiate Results Survey (CRS), which asks respondents to report on their post-graduation educational attainment, civic participation, and labor market outcomes, recasts and measures student outcomes as they relate to institutional mission, providing students and parents a valuable tool to make more informed educational choices. At the same time, the CRS provides institutions with a way to gauge the effectiveness of the education they provide by determining if alumni hold the values and competencies their missions set out to bestow. The result of this research is a set of measures that enables institutions and prospective students to assess educational outcomes by market segment, rather than across the full spectrum of baccalaureate and two-year institutions.

- **Providing educators and policymakers an analysis of effective assessment practices.** NCPI research has documented the nature, extent, and impact of assessment at the state policy, regional accreditation, institutional, and student levels. NCPI found that, despite widespread use, assessment mechanisms and findings are rarely applied to improve institutional academic decision-making or the academic performance of students. NPCI advised institutions and governing bodies on how to improve remediation methods and make better use of assessment information for strategic decision-making.

- **Offering educators, employers, and policymakers insights on student transitions to and from work and school.** NCPI has uncovered important observations about educational attainment, economic outcomes, youth labor markets, the role of education in workforce development, as well as the benefits of school-to-work programs and improved alignment between K-12 and postsecondary standards and policies.

- **Providing policymakers and practitioners recommendations on improving access to higher education.** NCPI researchers studying student access and institutional choice found a growing misalignment between the directions of national, state, and institutional education finance policies, on the one hand, and the needs of low-income students for financial support on the other. Another NCPI study uncovered major shifts in admissions policies in California and Texas resulting from the termination of affirmative action policies for college admissions, raising concerns about the increasingly complex and confusing signals being sent to students and parents.

- **Helping institutional leaders to understand and manage organizational change.** NCPI researchers are adapting quality practices for the academic environment through "educational quality work," a set of activities that can be used by faculty, academic leaders, and oversight bodies to improve and assure quality. NCPI researchers also found that campus leaders are responding to environmental pressures and are engaging in thoughtful reflection in an attempt to reconcile competing short-term needs as well as long-term goals.

NCPI has also promoted improvement in the postsecondary educational enterprise through a number of dissemination vehicles and outreach activities, including:

- ***The Landscape.*** This regular column in *Change* magazine features the results of data analysis from NCPI projects or those of affiliated researchers. Printed six times annually, each issue serves as an important resource for postsecondary leaders, including presidents, provosts, deans, and faculty, as well as policymakers and funding agencies.

- **The Cleveland Panel.** This semiannual activity convenes representative stakeholders from the Cleveland area—including administrators, faculty, students and parents, policymakers, and employers—to test the relevance and applicability of our research findings.

- **Surveys of alumni, institutions, state policymakers, employers, and households.** These national surveys captured critical information on how institutions serve—or do not serve—their students; how changes in assessment practices at the levels of policy, institution, and individual student affect learning; how postsecondary education's importance to the world of work has increased; and how parents and students perceive the postsecondary system.

- **Washington Policy Seminars.** These monthly informational seminars offer policymakers, legislators, analysts, and higher education leaders in the Washington, DC area an opportunity to hear first-hand the latest research findings generated by NCPI and our colleagues.

- ***Peterson's Guides.*** NCPI's groundbreaking collaboration with *Peterson's Guides* is helping to develop an alternative to the input-driven and prestige-driven rankings that are traditionally used to compare U.S. colleges and universities.

- **NCPI's Website** (ncpi.stanford.edu) serves as a major component of our dissemination strategy, providing access to NCPI products and publications, information about NCPI, its staff and researchers, its research and dissemination activities. It allows visitors to request information, provide feedback, and download documents free of charge. The website generates more than 800 downloads of reports per month.

- **Outreach to practitioners and the research community.** NCPI shares its findings with members of numerous professional organizations, including the American Association of Colleges and Universities (AACU), the American Association of Higher Education (AAHE), the American Educational Research Association (AERA), Association for Institutional Research (AIR), and the Association for the Study of Higher Education (ASHE).

- **Scholarly Journals and Publications.** NCPI authors have contributed research articles to numerous scholarly journals and makes its publications available through the ERIC Clearinghouse on Higher Education and the ERIC Clearinghouse for Community Colleges.

- **Media Placement.** NCPI research has reached millions of readers through major stories in local, regional and national publications including *Time, U.S. News and World Report, Chronicle of Higher Education, New York Times*, and *Education Week*.

Research Findings and Impact

NCPI's work has helped to shape dialogue and has offered insights and innovative solutions to challenges facing postsecondary education. Some of these major contributions include:

1. Providing policymakers, institutions, and consumers with an understanding of the marketplace for higher education.
2. Helping consumers and institutions to better understand student outcomes.
3. Providing researchers, policymakers, and institutions with information on institutional, state and federal responses to changing environmental demands.
4. Offering educators, employers, and policymakers insights to improve student transitions.
5. Providing policymakers and practitioners with data analysis and policy recommendations to improve access to higher education.
6. Offering institutional leaders insight into managing organizational change.
7. Providing educators and policymakers with an analysis of effective teaching, learning, and assessment practices.

Impact 1 Providing policymakers, institutions, and consumers with an understanding of the marketplace for higher education

NCPI has pioneered concepts for understanding how markets are reshaping higher education and documented a highly segmented market for postsecondary education that is almost exclusively defined by market position (Zemsky, Shaman, and Iannozzi 1997; IRHE 1998). This "market taxonomy" demonstrates how institutional economies, faculty profiles, student characteristics, educational attainment, labor market outcomes, and civic engagement differ across market segments, and also provides a framework for understanding the one public policy issue that is increasingly dominating discussions regarding higher education: namely, the cost of providing an undergraduate education and the price consumers pay. Researchers found that the more distant their market segments, the more likely any two institutions will differ significantly from one another in terms of how they achieve desired educational outcomes. Best practices, as well, are likely to vary by market segment.

Following is a summary of some major findings:

- *Most of the characteristics that matter to higher education—price, cost, the nature of educational program—sort according to market segments for two- and four-year institutions.* For example, among four-year institutions, those in the name-brand, or most highly selective, segment of the market are the most expensive, reflecting a higher demand for the educational experience they offer; price declines proportionally moving across the market segments.

- *A key student characteristic—age—maps to the continuum that underlies the structure of the market.* The name-brand segment of the market is almost exclusively the preserve of the young—those students who enroll in postsecondary education immediately following graduation from secondary schools—while the convenience sector of the market is increasingly characterized by older students returning to school to complete a degree or receive skills training.

- *The distribution of undergraduates by race/ethnicity differed across market segments.* African-American and Hispanic students are over-represented in two-year public institutions and under-represented in four-year name-brand institutions, while Asian-American students, on the other hand, are over-represented in four-year name-brand colleges and universities.

- *The structure of the market for postsecondary education in general and baccalaureate education in*

particular is important because the segment in which a student enrolls often predicts his or her educational attainment. For example, ten years after high school, only 43 percent of the students who started at a four-year institution in the convenience sector of the market had completed a bachelor's degree. In sharp contrast, more than 90 percent of the students starting at an institution along the most selective edge of the name-brand sector of the market had completed a bachelor's degree, and nearly 60 percent had engaged in post-baccalaureate study.

- *The relationship between earnings and market segment extends the pattern, but in an unexpected way.* Ten years after high school, the median annual salary and wages for holders of baccalaureate degrees without further education hardly differed across market segments. In other words, if a student attending a highly competitive, highly selective, and more expensive institution did not earn a professional post-baccalaureate degree, the economic advantages expected to be attached to a selective name-brand degree did not materialize.

- *Tuition rates are highly correlated with graduation rates and selectivity.* Researchers were able to explain upwards of 85 percent of the variance in the tuition rates of both public and private institutions by using a model that first groups institutions by the percent of their freshmen class graduating within five years and then stratifies those institutions further by demand within market segments.

The results of the research team's efforts will be published in a forthcoming Jossey-Bass publication entitled *When Markets Matter* (Zemsky, Shaman, and Shapiro, 2001).

By examining tuition increases of market leaders in private and public higher education institutions, NCPI researchers found that despite the perception that colleges and universities—particularly the most selective institutions—are engaged in price gouging, a longer historical perspective reveals that higher education's tuition increases as much more steady than previously believed (IRHE 2000e).

How Parents View Higher Education In order to compare parents' views about higher education, NCPI collaborated with the National Center for Public Policy and Higher Education, the Public Agenda Foundation, and the Consortium on Policy Research in Education (CPRE) to conduct a survey of more than 1,000 respondents from the general public. In an initial report researchers found evidence to dispel the notion that parents within minority groups do not value higher education as highly as the general public. In addition, researchers found that 87 percent of Americans believe that a college education has become as important as a high school diploma used to be. It is less encouraging, however, to learn that the public is not well-informed about higher education, and that people are much more concerned about the environment, health care, care for the elderly, and the public schools than they are about higher education (Public Agenda 2000).

Adult Enrollment NCPI research on adult enrollment in postsecondary education highlighted the role of baby-boomers in spurring the growth of adult enrollments and revealed that adult enrollments contributed significantly to U.S. educational attainment as a whole (Jacobs and Stoner-Eby 1998). Researchers found that enrollment of women grew faster than that of men during the period of 1970-90; however, women and minorities did not "catch up" to white males in average educational attainment at later ages. Meanwhile, researchers found little growth among traditional-age, full-time students.

Impact 2

Helping consumers and institutions to better understand postsecondary educational student outcomes

NCPI research is providing students, their parents and institutions with innovative tools to help them make more informed educational choices. Results from NCPI's College Results Survey, a project that measures collegiate results or "performance confidence" of college graduates six years after earning their baccalaureate degrees, indicate that educational outcomes vary in predictable

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ways across market segments and that outcomes are associated with occupational choice. The results of this research will allow institutions and prospective students to assess educational outcomes by market segment. The larger result should be a more complete understanding of the market for postsecondary education, one in which quality judgments are based on outcomes and comparisons are made among institutions in a given market segment, rather than across the full spectrum of baccalaureate and two-year institutions. The results of this testing provide an important alternative to the media rankings of colleges and universities (Zemsky, Shaman, and Shapiro 2001).

Researchers have found that substantial differences exist between graduates' beliefs about the importance of civic engagement and their actions to support those beliefs. Although the type of institution which students attended had little to do with predicting civic engagement, factors such as attachment to a social cause, gender, and college major were stronger predictors of level of involvement (IHRE 2000a).

The CRS is now licensed to Peterson's Guides as a commercial product used in conjunction with Peterson's guides and its website, Bestcollegepicks.com. NCPI also developed a Web-based reporting utility that allows participating institutions to generate reports about their graduates' responses to the CRS.

Impact 3

Providing researchers, policymakers, and institutions with information on institutional, state, and federal responses to changing environmental demands

Institutional Responses Based on analysis of focus group data on adaptation and organization/environment interdependence, NCPI found that public higher education leaders identified four key sets of environmental pressures: to expand access, meet workforce training needs, cut/contain costs, and adopt/upgrade technology (Gumport 2000). Campus leaders also identified three types of responses: programmatic, curricular, infrastructure. When determining appropriate responses, leaders manage for institutional legitimacy, and strive for consensus and self-preservation. Analysis by institutional type suggests that leaders of comprehensive universities face the greatest challenge of reconciling highly divergent expectations.

Researchers found a general pattern of decline in revenue from state appropriations and an increase in revenue from tuition and fees as a share of total institutional revenue over the past twenty years in public higher education. Likewise, researchers found a general pattern of increased revenue from private gifts, grants, and contracts as a share of total revenue across sectors of public higher education (Gumport and Jennings 1998).

An analysis of public universities and private colleges found that the missions and operations of most institutions are driven by the pursuit of student-generated dollars. As a result, institutions have benefited as students bear an increasing amount of the cost of operating a university (IRHE 2000b).

Federal Responses NCPI helped convene a roundtable of leading educators and policymakers to discuss how the current national climate for higher education might impact colleges and universities. Their discussions resulted in the following observations:

- The general public and those who influence federal support of research and student financial aid continue to express concern about the prices that institutions charge.
- Many have come to question the degree to which higher education is committed to the mission of providing a quality education to its students. Much of the discussion in Washington DC and several state capitals focuses on higher education's perceived lack of attention to ensuring that its graduates succeed in learning.

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- The federal government's investment in the research enterprise is becoming more targeted, favoring some types of research and some institutions over others. This change in orientation is creating an increasing sense of division between "haves" and "have-nots."

- Higher education must confront a political process that is increasingly focused on short-term readings of public opinion. In this environment, positioning and perception become crucial; as there is more emphasis on influencing the media using event-driven activities as well as on using focus groups and polling before taking positions.

Offering educators, employers, and policymakers insights to improve student transitions

School-to-School Transitions NCPI research indicates that the melange of K-16 education policies sends confusing signals to students and schools about what knowledge is worth having (Kirst 1998). Findings from Texas, one of six case study sites, revealed that:

- There is no significant policy or discussion mechanism for representatives from higher education and K-12 to coordinate and align standards, including admissions and placement exams.

- The Texas legislature has increased its role in undergraduate admissions-related decisions, a development that is at odds with the historical culture of local control in the education arena.

- Frequent changes in admission and placement policies have created confusion for students, high school counselors and other stakeholders. In fact, many students and K-12 educators are unaware of current undergraduate admissions-related policies in the two higher education institutions studied.

- Researchers found large differences between honors and non-honors students with respect to their understandings of college admissions-related policies and procedures: While honors students received college admissions-related information from their parents and teachers, non-honors students received this information in a relatively haphazard fashion.

School-to-Work Transitions Researchers conducted a comprehensive study of school and work transitions in the United States, providing the starting point for an Organisation for Economic Co-operation and Development (OECD) visit to the United States (Zemsky et al 1998). Drawing on the strength of the market taxonomy developed by NCPI, the review documents patterns of work and schooling; educational attainment and the youth labor market; the restructuring of the economy; the growing use of contingent workers and their likely impact on the transition to working life; and employers' view of the work readiness of graduates of schools, colleges, and universities. In addition to mapping the life paths of youth at subsequent intervals after high school graduation through transition matrices, researchers examined schooling and work outcomes (Zemsky, Shaman, and Iannozzi 1997; IRHE 1998). Their research offered the following conclusions about youth choices:

- It is difficult to identify a clear "school-to-work" transition in the United States. Almost every student worked, and a significant majority continued their education eventually. These youths held a variety of jobs after graduation, changing them often as well as entering and leaving the labor market with remarkable frequency.

- Educational attainment beyond high school hinges on the first postsecondary institution that a student attends.

- Baccalaureate degrees will likely bring economic success to individuals if they are a prelude to further professional education. Even in such cases, students get only an increased probability, rather than a guarantee, of better-than-average earnings.

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Research that documented patterns of transition to employment across three decades attempted to distinguish between relatively "clean" and "messy" transitions (Bailey 1998):

- At age 16, over 95 percent of the study cohort were enrolled in school, but already more than half were also engaged in the labor force. This combining of work and schooling continued well into the cohort's 30s.

- The timing of transition sequences is clearly a function of educational attainment. Enrollment in college substantially lengthens the transition between school and work, increases the likelihood of combining working and schooling at later ages, and delays entry into exclusive labor force participation.
- College graduates are less likely to have either continuous labor force participation or employment, but are also the most likely of all groups to experience a clean transition. Among the least educated, by contrast, continuous labor force participation is high, but continuous working is low, and clean transitions to either activity are uncommon.

The movement of youth from school to work is not only affected by their educational experiences and personal choices, but also in a fundamental way by the conditions of the labor market in which they seek employment. NCPI studies identified three characteristics of the current labor market that affect how youth fare when seeking employment:

- Early stability in the labor market has positive effects on wages. NCPI research examining the effect of job churning on youth investigated the impact of frequent job changes and found evidence of the positive effects of early job stability on adult wages (Neumark 1997).

- Cognitive skills are important in determining the earnings of young labor market entrants. Research found that the demand for cognitive skills increased for women between 1985 and 1991, but remained steady for men (Murnane et al 1998). Researchers also found that the cognitive skills of high school seniors are strong predictors of subsequent educational attainment—one reason why senior math scores predict earnings a decade after graduation.

- A college education will have increased demand in the labor market. NCPI analysis of labor market data concluded that demand for college graduates in the labor market will be higher than the Bureau of Labor Statistics (BLS) estimates, that the growth of college-level occupations will account for 65 percent of total employment growth in the near future, and that past trends in the upskilling of existing occupations will continue (Bishop 1997).

NCPI research suggests that school-to-work programs are successful in promoting postsecondary enrollment as well as in making schooling more work-relevant for participants. When engaged in a school-to-work program, most students expected to continue their education rather than directly enter the workforce. Signals are clearly being sent to these students that postsecondary education is important for success in the world of work. School-to-work programs help students transform an almost universal goal to attend college into concrete steps on how to get there (Salzman and Handler 1998).

Using data from administration of National Employer Survey (NES), NCPI conducted a study of worker retraining and found evidence that retraining is used to salvage valuable social capital in the form of relationships and 'soft' worker skills, even where the technical skills of workers have become outdated. Preliminary analysis found that establishments operating below capacity are more likely to retrain, that retraining is negatively (but diminishingly) related to recent changes in employment rates, and those firms reporting that increased skill levels are required for adequate performance in front-line production are more likely to retrain (Cappelli, forthcoming).

A second study that used NES data examined the historical trend of innovative work practices and organizational structure in U.S. manufacturing establishments. Researchers found that most of these innovative practices raise compensation for employees but do not seem to improve

productivity. These practices—notably computer usage, team production, pay-for-skill, and profit sharing—appear to benefit workers by increasing pay and possibly making their jobs more interesting as well. While employers do not seem to reap net benefits from these practices, they do not experience net costs from doing so, either. (Cappelli and Neumark, forthcoming).

Data from the 1997 National Employers Survey was also used to support a study examining the ways in which community colleges can collaborate with community-based institutions to prepare disadvantaged youth and adults for work, advance their educational attainment, and develop the economies of the neighborhoods and communities in which they live. In particular, researchers were interested in determining whether regional policies dealing with human capital development are reflected in employers' relationships with local postsecondary institutions. This project, entitled "In Support of Creating an Educated Workforce in Impoverished Communities," was supported by a grant from The Ford Foundation to Dr. Hillard Pouncy of Rutgers University.

Impact 5

Providing policymakers and practitioners with data analysis and policy recommendations to improve access to higher education

Questions of Financial Aid NCPI researchers studying the effects of financial aid on student access found that the nation still has much work to do before academic talent rather than family background determines who enrolls in higher education (Schapiro and McPherson 1999). For example:

- In 1994, only 75 percent of high-ability students from low-income families advanced to postsecondary education, compared with 95 percent of high-ability, high-income students.
- In 1994, a high-income student with average ability was more likely to pursue higher education than a low-income, high-ability student (81 percent versus 75 percent, respectively).

Despite virtual unanimity among the public (93 percent of respondents) that the price of higher education should not prevent qualified and motivated students from going to college (Public Agenda 2000), NCPI found a growing misalignment between trends in national, state, and institutional policies toward higher education finance, on the one hand, and the needs of different groups for increased financial support on the other.

In examining the relationship between student financial aid and college choice, NCPI found that federal and state governments and colleges are currently retreating from the framework of objectively measuring need and working as partners with students to meet that need—a perspective that has dominated thinking about higher education finance for the past 40 years.

NCPI researchers hypothesize that three forces—defensiveness about relative advantage, resistance to welfare-state redistribution, and the suspicion of institutional motives—create formidable barriers to developing policies that serve the educational needs of lower income families. They offer two observations about the types of conditions that may foster a more promising environment: (1) emphasizing the intrinsic and "absolute" benefits of higher education, as well as its contribution to relative economic standing, including the economic benefits of educating students in more diverse environments for both majority and minority students; and (2) promoting a "social insurance" perspective on the public financing of higher education, which holds considerable advantages compared to the "welfare-distributionist" perspective.

Affirmative Action and Admissions Policies NCPI has uncovered major shifts in admissions policy in California and Texas as a result of the termination of affirmative action policies for admissions. For example, in order to help adjust for the state's ban on affirmative action, the University of California at Davis has implemented a new and complex admission formula that takes into account such factors as parental education, income, and the racial diversity of the school attended in admissions decisions (Kirst et al, forthcoming).

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College Attendance Among Women NCPI research suggests that college attendance among women is very responsive to public decisions affecting in-state tuition levels, to the proximity of public colleges, and to the economic payoff (Bishop 1998). The payoff for women of attaining a college degree has increased remarkably, contributing to the postwar explosion of female college enrollment rates.

Offering institutional leaders insight into managing organizational change

NCPI researchers have found that several forces are converging on traditional colleges and universities and forcing the biggest transformation of postsecondary education since massification and the rise of federally sponsored research following World War II. These forces include the role of mission creep, quality approaches, technology, diversity, and business and industry. Mission creep, or the steady pressure to increase research at the expense of teaching, has been driving costs up and reducing the delivered quality of education at all kinds of four-year institutions. At the same time, business' approach to assuring and continuously improving quality is challenging higher education's traditional academic culture. Information technology is transforming on-campus instruction, enabling distance learning and new competition, and also driving up costs (Massy 1999). Meanwhile, postsecondary institutions are facing new pressures and opportunities such as the increasing significance of diversity and the growing influence of business and industry as employers, competitors, and potential collaborators (Gumport 1999).

Technology's Contribution to Higher Education While NCPI found that claims of cost savings are as of yet unproven (Gumport and Chun 1999), researchers believe that technology can have a positive effect on unit costs, but only if the application is paradigm-changing and the institution cuts or contains costs for reasons not related to the technology (Massy and Wilger 1997).

Quality Practices NCPI researchers have identified "educational quality work" as the key missing link in most institutions' transformational efforts. Quality work refers to the activities of faculty, academic leaders, and oversight bodies that are aimed at improving and assuring quality (Massy 1999). Researchers concluded that the institutional processes that lead to paradigm change are very similar to the ones needed for conventional educational quality improvement and assurance (Massy and Wilger, forthcoming). However, either the institution itself or an external body needs to stimulate quality assurance processes, as they seldom arise spontaneously.

Responses to Environmental Demands In analyzing organizational responses to environmental demands, researchers discovered conflict between those who prescribe restructuring for higher education as an industry and those who prescribe restructuring for higher education as a social institution (Gumport 2000). From each perspective come societal imperatives to reshape academic practices—such as economic pressures to become more efficient and democratic pressures to serve underprepared students and create informed citizens. Under certain circumstances (i.e. resource scarcity, pressure to identify priorities, pressure for selective reinvestment), these imperatives compete and conflict with each other, resulting in management challenges for leaders of public colleges and universities.

Particularly within public higher education, institutional leaders find themselves positioned between advocates for adaptation to contemporary market demands and advocates for protecting universities and colleges from short-term market demands. A major concern in determining appropriate organizational responses is that adaptation to the market gives primacy to short-term economic demands at the risk of neglecting a wider range of educational goals and enduring responsibilities for public higher education as a social institution.

NCPI research also answered basic but important questions about the characteristics of institutions which have or have not responded to the need for increased accountability to their consumers and stakeholders. Researchers found that public colleges in the user-friendly comprehensive or doctorate-granting categories reported the greatest increase in accountability to stakeholders (IRHE 2000c).

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The Perceptions and Roles of Higher Education Leaders Researchers found evidence that counters widespread criticism of higher education leaders as resistant to change and unresponsive (Gumport 2000). In interviews and focus groups with institutional leaders, researchers found that leaders were engaged in thoughtful reflection regarding how to reconcile environmental pressures and how to enhance their institutions' material resources and legitimacy with various stakeholders. In settings where decision making is faculty-driven and where environmental pressures are not compatible with the dominant institutional logic, data suggest that managers strive for either superficial conformity or ongoing ambiguity as a means to preserving consensus in the short term. The data also point to the potential for campus leaders to play a more active role in reshaping environmental pressures, including cultivating demand for particular academic programs that may be a distinctive strength of their institutions, and articulating a democratic agenda more forcefully and in harmony with economic imperatives.

Impact 7
Providing educators and policymakers with an analysis of effective teaching, learning, and assessment practices

Toward a New Scholarship of Teaching Researchers found that faculty are developing a scholarship of teaching (Huber 1998) and that faculty interest in the scholarship of teaching is becoming more common, although in many departmental settings it has yet to become formally rewarded (Hurtado et al, forthcoming).

- Many faculty members already practice assessment techniques in an effort to improve their own teaching. Researchers found evidence that student performance information can be taken collectively, or "scaled up," in order to provide information that both assists faculty in reflecting on their own teaching and its improvement, and helps determine what students are learning across a department. By systematically collecting evidence of student learning, institutional research can support and document faculty innovators' work. Furthermore, by integrating faculty expertise and coordinating multiple levels of assessment activity, institutions can create a coherent portrait of how the campus is improving student learning and thus, help refine the conversation addressing academic and accountability concerns (Hurtado et al, forthcoming).

- Research that examined student and faculty issues that impact teaching, learning, and assessment found that innovating faculty used clearly articulated goals associated with performance and evaluated student performance in relation to learning goals (Hurtado et al, forthcoming).

- At all types of higher education institutions, the majority of faculty agreed that peer review should be used in evaluating teaching effectiveness. While few faculty reported new developments in the evaluation of research and applied scholarship, about one-third of faculty reported that new methods of evaluating teaching have been developed in their departments (Huber 1998).

A Focus on Community Colleges Researchers found that community college faculty are—as one would expect—more oriented to teaching than faculty at other types of institutions (Huber 1998). In examining innovative teaching in community colleges, researchers found that perceptions of commitment to teaching take into account not only what professors do inside the classroom, but also what they do beyond classroom doors. Exceptional teachers go beyond the classroom and traditional notions of curriculum development by sharing their knowledge and professional experiences with colleagues and with people not traditionally part of an academic setting. Innovative teachers also encourage and enable their students to use their classroom learning to help people in the larger community (Kerekes and Huber 1999).

Researchers also found preliminary evidence that programs within two-year colleges intended for prospective teachers may be able to help alleviate the anticipated shortage of K-12 teachers. Researchers believe that collaborations between state universities and two-year colleges may

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increase the number of teachers from diverse backgrounds, thereby enhancing prospects that future teachers may more closely resemble the changing demographics of student populations.

Faculty Roles and Incentives NCPI researchers added new, critical findings to the national discussion of how incentives and rewards shape faculty behavior. Research found that given the opportunity, most faculty would devote extra discretionary time to research. It appears that although the pervasive research model pressures faculty at all types of colleges and universities to conduct research, the faculty value this type of work (IRHE 2000d).

State and Regional Assessment Policy and Practice Researchers found that state governance structures play a key role in the development of state assessment policies and practices (Nettles et al 1998). Among their findings are the following:

- *Policy Type.* Approximately one-half of the states have policies designed to both ensure quality and make institutions accountable to a higher authority—be it the governor, state legislature, or coordinating or governing board; nine states have policies which focus exclusively on quality assurance; five emphasize accountability.

- *Policy Stage.* Nearly half of the states are in the process of implementing their policy; one-fifth are evaluating and reformulating their policies.

- *Authority.* Twenty-one states reported the adoption of assessment policies, indicating non-legislative means; twelve states have statutory authority assessment initiatives; and eight states reported a combination of both assessment initiatives and policies.

- *The extent and implications of common assessment practices.* The increasing use of common assessment practices may facilitate comparisons across institutions by legislatures. However, this practice has resulted in concern—primarily at the institutional level—that state assessment policies do not recognize the substantial differences across institutional types and missions.

- *The use of incentives and/or consequences in assessment policies.* A number of states use financial incentives, or consequences, to achieve campus compliance with state-level assessment policies, ranging from allowing institutions to charge their students "assessment fees" to variations of the "performance funding" system first used by Tennessee in the 1970s.

Researchers found that neither processes nor a single set of outcomes is mandated by any of the regional accrediting associations, and that associations' expectations are broad in terms of assessment approaches. According to researchers, accrediting associations have only recently engaged in systematic guidance and training for their institutional membership regarding assessment practices.

Student Assessment Based on a national survey of almost 1,400 postsecondary institutions, NCPI documented the nature, extent, and impact of student assessment strategies on campuses. Although researchers found widespread use of student assessment, they discovered that it has had little influence on academic decision-making or academic performance, leading to the conclusion that it is of critical importance to embed student assessment processes in other academic management or educational improvement processes. In creating this national profile of student assessment initiatives, researchers developed empirically-based advice for administrators, faculty, and staff on designing student assessment practices most likely to foster institutional improvement. Researchers also reported findings and recommendations based on institutional type (associate of arts, baccalaureate, comprehensive, and research/doctoral), including guidelines for conducting an institutional inventory, and an agenda for planning for improved student assessment (Peterson et al. 1997, 1998, 1999).

This research yielded the following observations:

- *Institutional Approach to Student Assessment.* Institutions' approaches to student assessment emphasize the use of entry measures and easily quantifiable indictors of student performance and give less attention to more complex measures of student performance (e.g., higher order cognitive skills, affective development).

- *Organizational and Administrative Support for Student Assessment.* Institutions engage in student assessment in order to prepare for accreditation self-studies, improve student achievement, and improve academic programs. Governance for student assessment is generally shared across functional areas and between administration and faculty, while academic affairs typically has primary responsibility for directing student assessment activities. Many institutions incorporate student assessment information into academic planning and review processes; however, institutions are less likely to provide professional development on student assessment or to use faculty evaluation and reward policies to promote faculty involvement in student assessment.

- *Institutional Perceptions of External Influences on Student Assessment.* Institutions perceive regional accreditation requirements, and to a lesser extent, state requirements, as important and positive influences on their student assessment efforts.

- *Uses and Impacts of Student Assessment.* Student assessment information is most often used to modify student assessment processes, design or reorganize academic programs or majors, and modify academic support services; however, it is seldom used in decisions concerning faculty promotion or rewards. Most institutions do not monitor the effects of student assessment on students, faculty or on relationships with external constituents.

Researchers have made their survey instrument available to institutions as a means of examining student assessment on their own campuses As a result, several institutions plan to use this information to inform their institutional student assessment efforts for upcoming accreditation visits.

Postsecondary Research for a New Era

Building upon a strong foundation of research and outreach undertaken during its first five years, NCPI will embark on a new series of activities in its sixth year. These activities seek to identify research priorities for future funding, extend promising lines of inquiry, and reach out to a diverse set of constituencies.

Agenda-Setting Activities

Unprecedented competition—both among traditional providers and from new, non-traditional competitors—the emergence of an increasingly savvy consumer, an accountability-driven policy environment, and the need to develop new education delivery systems have resulted in multiple, and, at times, contradictory pressures for postsecondary education. At stake is the future of a postsecondary educational system considered by many to be the best in the world.

Having identified this changing context—as well as how key stakeholders have perceived and reacted to these shifts—NCPI is positioned to assist in shaping an agenda for future research in the field. In order to incorporate input from many knowledgeable sources, NCPI will convene stakeholders to discuss the major issues facing postsecondary education that require further investigation. These conversations will draw on the expertise of faculty and administrators, state and federal policymakers, researchers, and parents.

Based on a review of Center research and an analysis of current and projected topics of concern to key stakeholders, NCPI has identified a series of vital topics that will serve as a starting point for

these national conversations. These four themes include: (1) the changing nature of faculty work; (2) the role of markets in shaping postsecondary missions and outcomes; (3) the emerging importance of student learning as an organizing principle for collegiate curricula and departmental agendas; and (4) the growing need to revisit the meaning and purpose of the social charter that links the academy and the broader community. A final set of conversations will focus on the broader implications of these changes for transforming organizational practices and public policies.

NCPI will weave the insights gained from these conversations into a report that intersects the teaching, research, economic, and civic functions of colleges and universities, and identifies implications for practice and public policy. We envision that these national conversations and the resulting report will help guide the philanthropic, research, and policy communities in constructing their research agendas.

Extension of Research Analyses

NCPI will conduct a series of short-term research activities that build upon existing lines of inquiry and address pressing policy issues including: changes in the competitive landscape of postsecondary providers; inter-institutional agreements and partnerships; and the role of community colleges in K-16 transitions. Each of these themes will also inform NCPI's agenda-setting process.

The Competitive Landscape Mounting evidence suggests that contemporary postsecondary reform is increasingly consumer-driven, rather than government- or institution-driven (Gumport 2000, Zemsky 1997). Building on prior research, NCPI will examine developments in the competitive landscape for postsecondary education, focusing on emerging market forces and their effects on institutions, students, and policymakers.

From Competition to Cooperation Given heightened market pressures in the competitive postsecondary landscape and an increasingly complex array of competing demands and public expectations, postsecondary institutions are searching for management prescriptions that will enable them to retain or gain a comparative advantage. An important dimension of competitive positioning is the development of cooperative efforts across institutions. NCPI will analyze data already collected in order to shed light on some of the challenges inherent in cooperative agreements for awarding financial aid and academic partnerships between public higher education and industry.

Examining the Role of Community Colleges in K-16 Transitions Community colleges comprise a large proportion of the higher education population and serve a large number of students from traditionally underrepresented racial and ethnic groups. Given imperatives regarding access and equity to higher education and projected demographic shifts in the composition of student populations, it is clear that community colleges will continue to play an increasingly important role in meeting the needs of underserved and underprepared students. Building on NCPI research regarding strategies for improving K-16 student transitions, NCPI will examine the vital yet understudied role of community colleges in K-16 alignment and transitions, as well as their role in providing remedial education.

Translation, Dissemination, and Outreach

NCPI will involve postsecondary stakeholders in translating our research findings into guidelines for effective practice and sound policy for policymakers, practitioners, employers, researchers, and and informed educational choices for students and parents.

NCPI Stakeholder Panels. NCPI will expand its successful Cleveland Panel concept to gain perspectives from stakeholders in other regions of the country. Comprised of parents, students,

faculty, employers, and civic and educational leaders, the Stakeholder Panels will help to shape our dissemination strategies, identify a common language for translation, and test the products that we are developing. The Panels will also become an important means for learning what members of the public want to know about higher education both as citizens and as consumers.

Washington Policy Seminars. NCPI's Washington Policy Seminars afford policymakers a unique opportunity to participate in a discussion series specifically targeted to their community. Attendance by representatives from national higher education associations and government, including the legislature, has allowed NCPI to keep its research in step with the quick pace of federal policymaking, as well as to inform key policy debates.

Linked Web/Print Information Channels. While the Internet has an unprecedented capacity for providing access to information, it is often difficult for audiences to locate the most up-to-date and relevant materials—as well as to find that information in one place. In Spring 2001, NCPI will launch a new website that provides the wide array of postsecondary constituencies a one-stop location that serves as a central place for information gathering.

NCPI Tools for Improvement. Several projects will produce tools that constituencies can use to enhance their daily decision-making. These toolkits will represent research-based solutions that provide data, best practices, and recommendations on the key issues. NCPI will produce an Employers' Toolkit, a Parents' and Students' Toolkit, an Assessment Toolkit, and a K-16 Policymakers' Toolkit. These toolkits will:

- Present NCPI research in a form that directly adds value to practice;
- Facilitate greater use of research by constituencies in their decision-making;
- Improve the ways employers view and collaborate with postsecondary education;
- Offer parents and students information that will allow them to make informed educational choices according to individual institutions' quality and student outcomes, rather than ranking schemes;
- Offer institutions and policymakers ideas to maintain access in a time when affirmative action is being challenged; and offer suggestions for improving student transitions between high school and community college, and from community college to four-year institutions; and
- Improve the use of student assessment information by academic departments, institutions, and states.

Professional Outreach. NCPI will build on successful dialogues it has begun with the leadership and members of postsecondary professional organizations through focused discussions at national conferences, scholarly presentations, specially convened roundtables, and informational displays at national conferences.

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